Claims

1. According to one aspect of the present invention there is provided a homogeniser including

   - a housing;
   - a drive mechanism located within said housing; and
   - a cutting element attached to said drive mechanism,

   characterised in that at least part of said drive mechanism is reversibly movable within said housing between a position in which said cutting element is located within said housing and a position in which the cutting element at least partially projects outside said housing and thereby facilitating cleaning of same.

2. A homogeniser as claimed in claim 1, wherein said housing includes an outer projection with a bearing surface capable of engaging with one or more objects external from the homogeniser to thereby restrain movement of said housing whilst allowing said drive mechanism and cutting element assembly to be movable with respect to said housing.

3. A homogeniser as claimed in any one of the preceding claims wherein the housing is a substantially tubular cylinder open at a first end.

4. A homogeniser as claimed in claim 3, wherein during homogenising operations, the cutting element is located at said first end within the volume of the cylinder boundaries.

5. A homogeniser as claimed in any one of claims 3 or 4, wherein the housing at said first end includes a plurality of slots and/or apertures.

6. A homogeniser as claimed in claims 5, wherein the slots/apertures are a series of castellations radially disposed about said first end of the cylinder.

7. A homogeniser as claimed in any one of the preceding claims wherein the cutting element is formed from one or more blades.

8. A homogeniser as claimed in any one of claims 2- 7, wherein the said outer projection is an annular flange, preferable located about a substantially intermediate point between the ends of said cylindrical housing.

9. A homogeniser as claimed in any one of claims 2- 8, wherein at least one said external object is a circular or part-circular opening.

10. A homogeniser as claimed in claims 9, wherein the circular opening is provided by an open-end of a substantially cylindrical vessel.

11. A homogeniser as claimed in any one of the preceding claims wherein said reversibly movable drive mechanism or part thereof located within said housing is formed as one stator of two-part stator electric motor, the other stator being fixed to the electric motor and/or said housing.

12. A method of cleaning a homogeniser cutting element, said homogeniser including,

- a housing with an outer projection configured with a bearing surface;

- a drive mechanism located within said housing with

- said cutting element attached to the drive mechanism,

- at least part of said drive mechanism being reversibly movable within said housing between a position in which said attached cutting element is located within said housing and a position in which the cutting element is at least partially projects outside said housing,

said method characterized by the steps of

- restraining movement of said housing by engaging said bearing surface with a fixed external object;

- moving said drive mechanism and cutting element assembly with respect to the housing until the cutting element at least partially projects from the housing; and

- cleaning the cutting element.

13. A cleaning method as claimed in claim 12, wherein said drive mechanism is operated during cleaning to pulse, agitate or otherwise move the cutting element.

14. A cleaning method as claimed in claim 12, wherein said method step of restraining movement of said housing is accomplished by inserting the homogeniser into an opening in a cleaning vessel until said bearing surface contacts said opening.

15. A cleaning method as claimed in claim 14, wherein said cleaning of the cutting element is performed by nozzles located within the cleaning vessel spraying cleaning fluid across the cutting element.

16. A cleaning method as claimed in claim 14, wherein said cleaning nozzles and/or the homogeniser may move or oscillate with respect to each other during cleaning.

17. A homogeniser substantially as hereinbefore described with reference to, and as shown in the attached drawings.

18. A cleaning method substantially as hereinbefore described with reference to, and as shown in the attached drawings.